REMARKS

In response to the Office Action dated April 17, 2007, Applicants respectfully request reconsideration based on the above claim amendments and the following remarks. Applicants respectfully submit that the claims as presented are in condition for allowance.

Claims 1-14 are pending in the present Application. Claims 1-14 are rejected. Claims 1-7 and 9-14 have been amended.

No new matter has been entered. Support for the claim amendments can at least be found in the specification, the figures, and the claims as originally filed. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Rejections under 35 U.S.C. 101 and 35 U.S.C. 112

Claims 1-8 have been rejected under 35 U.S.C. 101 as being allegedly directed to nonstatutory subject matter. In particular, the Examiner states claims 1-8 are hybrid claims directed to neither a process nor a machine, but rather something that embraces or overlaps two different statutory classes.

The provisions of 35 USC 101 state "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title." Applicants' claim 1 recites a "server including an analysis algorithm database storing a plurality of analysis algorithms for the genotyping analysis; and a client system communicatively coupled to the server; and a client engine executing on the client system." Thus, the system recited in claim 1 is classified as a machine and is proper statutory subject matter in accordance with 35 USC 101.

Claim 1 continues on to recite "the client engine performing: receiving results of a biochip test on the target sample using a biochip, downloading an analysis algorithm corresponding to the biochip from the analysis algorithm database, performing the genotyping analysis on the target sample using the downloaded analysis algorithm, and storing results of the genotyping analysis in the client system." As recited, the client engine is directed to a program or software executing on the client system. The Examiner's assertion that the claim recites

overlapping statutory classes of subject matter (i.e., machine and process) is in error. The Court has held that "a computer operating pursuant to software may represent patentable subject matter, provided, of course, that the claimed subject matter meets all of the other requirements of title 35." *In re Alappat.* 33 F.3d 1526, 1545, 31 USPQ2d 1545 (Fed. Cir. 1994); see also *In re Lowry* 32 F.3d 1549, 32 USPQ2d 1031 (Fed.Cir. 1994). More recently, the Court in *WMS Gaming Inc. v. International Game Technology*, 184 F.3d 1339, 51 USPQ2d 1385 (Fed. Cir. 1999), citing *In re Alappat*, held that a "general purpose computer, or microprocessor, programmed to carry out an algorithm creates 'a new machine, because a general purpose computer in effect becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from program software,' *In re Alappat*; *see also In re Bernhart*, 417 F.2d 1395, 1399-1400, 163 USPQ 611, 615-16 (CCPA 1969).

In the alternative, the Applicants submit that the format of the claim 1 as recited may be compared to that of a "means-plus function" format. The client system executes a 'means' (i.e., client engine) for implementing a process. 'Means-plus' function claims have been held to be proper statutory subject matter as falling within the category of machine or manufacture. For example, in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998), the Court held that the "means-plus function" format of the claim was properly recited as a machine and not a process and was statutory patentable subject matter. *State Street Bank* is directed to a data processing system for implementing an investment structure. The Court went on to state that "for the purposes of a 101 analysis, it is of little relevance whether [the] claim…is directed to a 'machine' or a 'process,' as long as it falls within at least one of the four enumerated categories of patentable subject matter, 'machine' and 'process' being such categories."

As recited, Applicants' claim 1 falls within a single statutory class, that is, a machine and accordingly, is patentable subject matter under 35 USC 101 and, for the same reasons advanced above with respect to the rejections under 35 U.S.C. 101, is sufficiently definite as defined within the provisions set forth in 35 U.S.C. 112, second paragraph. Thus, there exists clear error in the outstanding rejections of claims 1-8 under 35 USC 101 and 35 U.S.C. 112.

Claim Rejections Under 35 U.S.C. §102

Claims 1-14 are rejected under 35 U.S.C. §102(a) as being anticipated by Osborne et al., International Publication WO 01/16860 (hereinafter "Osborne"). Applicants traverse the rejections.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Amended Claim 1 recites, *inter alia*, "a server including an analysis algorithm database storing a plurality of analysis algorithms for the genotyping analysis; and a client system communicatively coupled to the server; and a client engine executing on the client system, the client engine performing: receiving results of a biochip test on the target sample using a biochip, downloading an analysis algorithm corresponding to the biochip from the analysis algorithm database, performing the genotyping analysis on the target sample using the downloaded analysis algorithm, and storing results of the genotyping analysis in the client system."

No new matter has been entered by this amendment. Support for the client engine may be found, e.g., in Figure 2 (client engine 321) and page 6, lines 1-6. Support for the communications coupling between the client system and server may be found in Figure 1 and on page 4, lines 14-18. Support for downloading analysis algorithms may be found, e.g., in Figure 6 and on page 6, lines 13-28.

Osborne discloses users collecting hybridization information from a clinical sample and *transmitting this information to a central data processing facility* along with the identity of the array. At the central processing facility, the information is analyzed and the most likely pathological or physiological conditions are *returned to the user.* (Page 5, lines 23-30 and Page 14, lines 11-16 of Osborne.) Osborne further discloses a central data processing facility including a database server that *stores hybridization profiles, clinical information associated with hybridization profiles, various statistical summaries and the like.* (Page 13, lines 25-27 of Osborne.) That is, data is stored on the *central data processing facility* and **not at the user**, contrary to the claimed invention.

By contrast, the Applicants claimed invention recites a plurality of analysis algorithms stored in the server. The client system downloads an analysis algorithm corresponding to the

chip from the server and performs the genotyping for the chip using the downloaded analysis algorithm. Osborne is entirely devoid of teaching these features.

Thus, Osborne fails to disclose all of the features recited in Applicants' claim 1. Claims 9 and 12 have been amended to recite features substantially similar to those recited in claim 1. For at least the reasons advanced above with respect to claim 1, the Applicants submit that claims 9 and 12 are not anticipated by Osborne. Claims 2-8 depend from what should be an allowable base claim. Claims 10 and 11 depend from what should be an allowable base claim. Claims 13 and 14 depend from what should be an allowable base claim. For at least these reasons, the Applicants submit that claims 1-14 are in condition for allowance and respectfully request reconsideration and withdrawal of the outstanding rejections.

Conclusion

In view of the foregoing, it is respectfully submitted that the instant application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is cordially requested to telephone the undersigned.

Applicants hereby petition for any necessary extension of time required under 37 C.F.R. 1.136(a) or 1.136(b) which may be required for entry and consideration of the present Reply.

In the event the Commissioner of Patents and Trademarks deems additional fees to be due in connection with this application, Applicants' attorney hereby authorizes that such fee be charged to Deposit Account No. 06-1130.

Respectfully submitted,

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